

ADINGPOKS 1PV

Two-component, low viscosity, epoxy pre-coat for wet concrete substrates

In compliance with: EN 1504-2, method 2,2(C) and 8,2(C); EN 13813 SR-B2.0-IR4

FIELD OF APPLICATION

As a primer in all epoxy systems. For impregnation and improvement of the physical mechanical properties of concrete surfaces or cement mortar surfaces. For protection of concrete surfaces exposed to mechanical influences and chemical aggression. When mixing with quartz sand, epoxy mortar with high physical-mechanical characteristics can be obtained, used for structural reparation of damages of concrete structures. ADINGPOKS 1PV is used as part of the system for protecting pedestrian tracks on bridges in combination with finishing coatings based on methacrylate resin ADINGMARKER P or ADINGCOLOR RF.

Adingpoks 1PV is used for the waterproofing system for bridge constructions together with quartz sand and bitumen strip waterproofing. The epoxy coating Adingpoks 1PV withstands the thermal changes during the application of the bitumen strip waterproofing as well as the application of the asphalt.

Due to the low viscosity of the product, Adingpoks 1PV is used for sealing and grouting cracks with a width larger than 0.1 mm. With that, Adingpoks 1PV enables structural bonding between the concrete elements and return the load-bearing capacity of the structure.

PROPERTIES

- Transparent, low-viscosity two-component epoxy resin;
- High adhesion to dry and wet concrete substrate;
- Waterproof and water resistant;
- Bacteriologically resistant;
- Good resistance to mild acids, salt solutions and mineral oils;
- Resistant to oil and oil derivatives;

TECHNICAL FEATURES

PROPERTY	METHOD	DECLARED VALUE
Appearance (A + B component)		viscous transparent liquid
Mixing ratio		A:B=1,7:1,0
Density	EN ISO 2811-1	A+B - 1,05-1,09 g/cm ³
Open operating time at a temperature of 20 to 25°C		to 60 min
Adhesion strength	EN 1542	>2MPa

METHOD STATEMENT:

SUBSTRATE PREPARATION

The concrete substrate should be sound, clean, and free of grease and dust, with a compressive strength of minimum 25 MPa.

For newly made concrete substrates, ADINGPOKS 1PV is recommended to be applied at least 7 days after the finished concreting.

If ADINGPOKS 1PV is used as a primer for other epoxy or methacrylate substrates, the concrete must be at least 28 days old.

Cement milk, penetrated grease and impurities in the substrate should be removed mechanically.

All damage to the substrate should be repaired using appropriate materials intended for structural repair of concrete structures.

APPLICATION OF ADINGPOKS 1PV AS A COATING

Before preparing the mixture, components A and B need to be mixed separately. The material is prepared by mixing the two components with an electric slow mixer (300 to 500 rpm) until complete homogenization. The amount of material to be mixed should be in accordance with the open working time of the product.

The application is performed evenly on the surface, with a roller. In highly porous substrates, it can be applied in two coats. The temperature of the substrate during application should be from 10 ° C to 30 ° C. The ambient temperature during construction should be from 10 ° C to 30 ° C. ADINGPOKS 1PV can be applied during increased relative humidity, but it is recommended that it does not exceed 80%.

PREPARATION OF EPOXY REPAIR MORTAR

Epoxy mortar is prepared by slowly mixing components A and B of Adingpox 1 PV (until completely uniform), and then add quartz filler. Recommended ratio of Adingpoks 1 PV : Filler S/H is 1:4 to 1:7. A slow mixer is used for mixing the epoxy mortar until complete homogenisation. The surface where the mortar is applied is finally treated with a steel trowel, whereby the material is pressed until complete closure of the surface structure. If necessary, Adingpoks 1 or other epoxy coating can be applied as a finishing coat to completely close the structure.

For illustration, the following table shows the test results of epoxy mortar prepared with Adingpoks 1 PV and Filler S / H (0.3-0.8 mm). Mixing ratio: Adingpoks 1 PV: Filler S / H (0.3 -0.8 mm) =1:4.

PROPERTY	METHOD	DECLARED VALUE
Mixing ratio	-	A+B : Filler S/H (0,3-0,8 mm) = 1 : 4
Compressive strength	EN 12190	>65MPa
Adhesive strength	EN 1542	>2MPa

- When using epoxy mortar for concrete repairs, it is necessary to perform previous testing.

CRACK INJECTION

Adingpoks 1PV can be applied by injection under pressure using an injection pump for one-component materials (within the open time for product operation). The injection is carried out through packers, which are equipped with non-returnable nozzles. Packers are placed in holes drilled directly in the crack or under angle - where the packer should cut the crack. After placing the packers, the crack should be closed with epoxy putty in order to prevent leakage of the material during injection. The distance at which the packers are placed depends on the width and depth of the crack. In the case of vertical cracks, Adingpoks 1PV is injected continuously from the lowest packer upwards, in order to prevent "trapping" of air in the crack.

CONSUMPTION

For one layer: 0.15 - 0.25 kg / m² (as a primer and as a coating)

For layer thickness 1cm (consumption of epoxy repair mortar): 19 - 21 kg / m²

(Adingpoks 1PV: Filler S / H (0.3-0.8 mm) = 1: 4)

PACKAGING

In sets of (A + B component) 3 kg

(Component A 1.9 kg and Component B 1.1 kg)

In sets of (A + B component) 24.3 kg

(Component A 15.3 kg and Component B 9.0 kg)

CLEANING

Tools and equipment are cleaned with Solvent P immediately after use.

STORAGE

In the original closed packaging, in dry rooms, at a temperature of 10 ° C to 30 ° C, protected from direct sun exposure. Shelf life 9 months.

CE MARKING

CE	
ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, North Macedonia 20 GDAB001/1 EN 1504-2:2004 EN 13813:2002 SR-B2.0-IR4	
ADINGPOKS 1PV Epoxy primer for wet-damp concrete surfaces	
According to EN 1504-2	
Capillary absorption and permeability to water	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
Permeability to water vapour	Class III, $S_D \geq 50 \text{ m}$
Adhesion strength by pull-off test	$\geq 2,0 \text{ N/mm}^2$
According to EN 13813	
Impact resistance	Class I $\geq 4 \text{ Nm}$
	After loading, no cracks, no delamination
Adhesive tensile strength	Class B 2,0
	$> 2,0 \text{ N/mm}^2$
Emission of corrosive substances	SR

Health hazard: It is necessary to avoid contact of the product with the skin or eyes, as well as direct inhalation when mixing the components. In case of accidental contact, remove the product immediately with a dry cloth or slightly dampened with Solvent P, and then wash the area thoroughly with clean water and soap. If the material bursts in the eyes, they should be rinsed immediately with clean water and medical attention should be sought. It is necessary to provide ventilation of the premises where we work with resins and solvents.

Fire: Adingpoks 1PV and Solvent P contain flammable solvents. Do not use near open fire and do not smoke during installation.

Cleaning and disposal: Unbound residues of Adingpox 1PV are cleaned with Solvent P. Old used packaging should be disposed of in accordance with local regulations and regulations for that type of waste. We recommend the method of application and the required quantities to be adjusted to the conditions of the facility, as well as the mandatory application of appropriate equipment.

Additional information is provided in the Product Safety Data Sheet.